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A Science Service Feature

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? WHY THE WEATHER ?

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MORE AIR GOES UP THAN EVER COMES DOWN

This is one of the most challenging of Dr. W. J. Humphreys' meteorological paradoxes published in his stimulating little book "Weather Proverbs and Paradoxes". We are ready to agree that "what goes up must come down." In the case of air, however, an exception must be made. "Odd though it may seem, the atmosphere as a whole is always ascending, " whether measured in terms of volume or of mass.

The vortical circulation of the atmosphere is due to the sinking of relatively dense cold air, and the consequent lifting of relatively expanded warm air. Thus, for any given weight of air, the volume of the ascending air is greater than that of the descending air.

But why should not the mass, or weight, of air going up and down be the same? Water vapor which usually constitutes 1 or 2 per cent. of the air always goes up as a gas, forming part of the air, but comes down largely as rain, snow, or hail. "Paradoxical, therefore, as it may be, a greater mass of air actually goes up- more by at least 16 million tons per second, the measure of world-wide precipitation- than ever comes down." (Pick up one-column cut 6-5-25)

(Tomorrow: Hay Fever and Weather)

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